

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/909,989
Attorney Docket No. Q65482

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1, 2 and 4 have been editorially amended. New claims 5-16 have been added. Claims 1-16 are now pending in the application. The rejections are respectfully submitted to be obviated in view of the amendments and remarks presented herein.

Rejection Under 35 U.S.C. § 112, Second Paragraph

Claims 1 and 4 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In response, claims 1, 2 and 4 have been editorially amended to improve clarity, to delete all instances of the term “per se,” to change all instances of “in form of” to recite “in a form of,” and to specify that the operation is one “of an operator.”

Reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, are respectfully requested.

Rejection Under 35 U.S.C. § 102(e) - Kuwata

Claims 1-4 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Kuwata (U.S. Patent Number 6,760,489). The rejection is respectfully traversed.

Regarding claim 1, Applicant’s claimed invention relates to an image processing condition determining apparatus for determining image processing conditions defining contents of image processing. An original image is subjected to the image processing. The image processing condition determining apparatus comprises an image obtaining section, an image

creating section, a display section, a reference image set up section, and an image processing condition determining section. The image obtaining section obtains an initial image associated with the original image. The image creating section performs an image creating processing wherein an image assembly is created for each of three or more sorts of adjustment parameters. The display section displays the image assembly created by the image creating section. The reference image set up section sets up one of a plurality of images constituting a plurality of image assemblies displayed on the display section in a form of a new reference image according to an operation of an operator. The image processing condition determining section determines a reference image processing condition associated with the reference image finally set up by the reference image set up section. The image creating section repeats the image creating processing, upon receipt of set up of the reference image, taking an image processing condition for creating a set up new reference image as a new reference image processing condition.

The disclosure of Kuwata does not anticipate the claimed invention. Kuwata discloses an image data interpolation apparatus which selectively executes one of a plurality of interpolating processes on obtained image data which obtains an optimum result of interpolation according to a feature amount concerning the image data with respect to the selected interpolating process. As shown in Figure 1, Kuwata's image data interpolation apparatus scales up an image represented by dot-matrix picture elements (column 5, lines 28-36). Image data is obtained by an image data obtaining unit (C1), and a picture element interpolating unit (C2) carries out an interpolating process for increasing the number of constituent picture elements of the obtained image data (column 5, lines 36-42). The picture element interpolating unit (C2) is capable of

carrying out a plurality of interpolating processes (column 5, lines 42-44). A feature amount obtaining unit (C3) obtains a feature amount concerning the image data with respect to the selected interpolating process, and an interpolating process selecting unit (C4) selects one of the interpolating processes capable of achieving an optimum result of interpolation according to the feature amount obtained by the feature amount obtaining unit (C3) (column 5, lines 44-50).

Kuwata further describes another embodiment of the image data interpolating apparatus as shown in Figure 51, which simultaneously executes an expansion process and an image sharpness changing process as the interpolating process when the image processing is carried in the unit of picture elements (column 35, lines 44-51). Kuwata discloses that an image data obtaining unit (F1) obtains image data, and an image processing selecting unit (F2) selects an image processing to be executed. A simultaneous processing determining unit (F3) determines whether the image processing to be executed includes the expansion process and the image sharpness changing process to be executed simultaneously. When these processes need to be executed simultaneously, a picture element interpolating unit (F4) changes the image sharpness when the interpolating process is executed to increase the number of the constituent picture elements in the image data (column 35, lines 51-61). Further, an application (12d) is capable of selecting the expansion process of the sharpness changing process, and executing various types of image processes by menu selection as shown in Figures 52 and 53, in which a process for selecting new file generation and generating image data used for image processing corresponds to obtainment of original image data (column 36, lines 26-45).

There is no teaching in Kuwata of all elements of Applicant's invention, as claimed. The Examiner cites to Kuwata's Figures 1, 2, 51 and 54, which describe structures and functions of an image data interpolation apparatus. However, Kuwata only refers to the selection of processes and execution of an interpolation process, such as a nearest neighbor interpolation method and a cubic convolution interpolation method. There is no teaching or suggestion in Kuwata of "an image creating section for performing an image creating processing wherein an image assembly, consisting of the initial image obtained by said image obtaining section or consisting of a reference image in which a predetermined image processing is applied to the initial image and a plurality of variation images in which image processing is applied to the initial image in accordance with an image processing condition wherein a parameter value of an adjustment parameter selected from a plurality of parameters is varied, taking as a reference a reference image processing condition for obtaining the reference image of image processing conditions defined by a set of parameter values of the plurality of parameters, is created for each of three or more sorts of adjustment parameters," as claimed. Kuwata's interpolating unit (C2) only performs an interpolating process for increasing the number of constituent picture elements of an obtained image data, and there is no teaching or suggestion of creating an image assembly for each of three or more sorts of adjustment parameters, as claimed.

Further, the interpolating unit (C2) in Kuwata carries out interpolation processes on the image data obtained in image data obtaining unit (C1), and does not generate a plurality of variation images by applying image processing to the initial image in accordance with an image processing condition wherein a parameter value of an adjustment parameter selected from a

plurality of parameters is varied. Additionally, the present invention uses a reference image processing condition as a reference for obtaining the reference image of image processing conditions defined by a set of parameter values of the plurality of parameters. These elements are also not taught or suggested in Kuwata. Although an obtained image data from image data obtaining unit (F1) is sent to the image processing selecting unit (F2) as shown in Figure 51, Kuwata does not teach or suggest the image processing selecting unit (F2) using the obtained image data as a reference "for obtaining the reference image of image processing conditions defined by a set of parameter values of the plurality of parameters," as claimed. Conversely, Kuwata performs processes such as expansion, reduction, sharpness adjustment, contrast adjustment and brightness adjustment on the obtained image itself, and does not use the obtained image data as a reference to obtain the reference image, as claimed (column 35, line 44 to column 36, line 61).

Furthermore, the claimed invention recites "a reference image set up section for setting up one of a plurality of images constituting a plurality of image assemblies displayed on said display section in a form of a new reference image according to an operation of an operator." The Examiner has relied on column 7, lines 50-67 and column 6, lines 30-56 of Kuwata for this teaching, however, Kuwata merely discloses that an image data interpolation apparatus may interpolate image data and display the interpolated image data on a display (17a1), as shown in Figure 3. Thus, there is also no teaching or suggestion in Kuwata of all the elements of a reference image set up section, as claimed.

In addition, the claimed invention further recites “an image processing condition determining section for determining a reference image processing condition associated with the reference image finally set up by said reference image set up section in a form of an image processing condition where the original image is subjected to the image processing, in accordance with the operation.” As discussed above, Kuwata fails to teach or suggest a reference image set up as claimed, nor does Kuwata teach or suggest a determination of an image processing condition associated with the reference image set up by a reference image set up section, as claimed. Kuwata’s image processing selecting unit (F2) selects an image processing to be executed but does not utilize an image processing condition determining section operating as claimed.

Still further, Kuwata fails to teach or suggest that the image creating section “repeats said image creating processing, upon receipt of set up of the reference image, taking an image processing condition for creating a set up new reference image as a new reference image processing condition,” as claimed. Kuwata discloses that a process for selecting new file generation and generating image data used for image processing corresponds to obtainment of original image data (column 36, lines 37-40), however, Kuwata’s obtainment is only that of original image data, and does not teach or suggest “taking an image processing condition for creating a set up new reference image as a new reference image processing condition,” as claimed. Although the Examiner has relied on column 36, lines 53-67 for this teaching, we note that Kuwata only describes a selection of an image process by an operator on a display.

At least by virtue of the aforementioned differences, the claimed invention distinguishes over Kuwata. Claim 4 recites a related image processing condition determining program storage medium storing an image processing condition determining program, and is distinguished for analogous reasons as discussed above. Claims 2 and 3 are dependent claims including all of the elements of independent claim 1, which, as established above, distinguishes over Kuwata. Therefore, Kuwata is patentable for at least the aforementioned reasons as well as for their additionally recited features. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(e) are respectfully requested.

With further regards to claim 3, “said image creating section creates three or more image assemblies including at least two image assemblies in which a parameter value of a same adjustment parameter is varied with mutually different variation widths, instead of creating the image assembly for each of three or more sorts of adjustment parameters.” Kuwata discloses only that a variation degree is calculated by comparison of a found parameter with those of the peripheral picture elements (column 29, lines 5-19). Thus, Kuwata does not teach or suggest varying a same adjustment parameter with mutually different variation widths, as claimed. At least by virtue of these additional differences as well as the aforementioned reasons, the claimed invention distinguishes over Kuwata.

Newly Added Claims

Applicant has added new claims 5-16 to provide more varied protection for the present invention. Support for these claims is found in the specification on at least page 4, line 15 to

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page 6, line 15, page 7, lines 21-25, page 21, lines 15-22, page 22, line 23 to page 23, line 3,
page 24, lines 16-19, and page 44, lines 16-23.

The cited reference does not teach or suggest: that “the operator selects the one of a plurality of images as a first favorite image and selects a second favorite image from another plurality of images taking the first favorite image as the new reference image,” as recited by claims 5 and 14; that “the operator parallelly performs rough adjustment and fine adjustment with respect to the selected adjustment parameter,” as recited by claims 6 and 15; that “the plurality of parameters include at least one of highlights, sky, skin and brightness,” as recited in claim 8; that “the image assembly is a string of images,” as recited in claim 9; and that the image processing condition determining apparatus further comprises “a pick point designating section for designating pick points on the image assembly displayed on said display section in accordance with another operation of the operator; and an assist item set up section for setting up a state of condition of the pick point designated by said pick point designating section in accordance with another operation of the operator,” as recited in claim 10.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,

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